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EXAMINER	
HAMILTON, MONPLAISIR G	

ART UNIT	PAPER NUMBER
2135	10

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,814	HIPPELAINEN, LASSI	
	Examiner	Art Unit	
	Monplaisir G Hamilton	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20, 22-30 and 32-35* is/are rejected.

7)☐ Claim(s) *21 and 31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The communication filed on 2/5/04 amended Claim 3. Claims 1-35 remain for examination.

Response to Arguments

2. Applicant's arguments with respect to Claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 recites the limitation " Gn interface". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 7-13, 16-19, 22-28, 30 and 32-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Dikmen (US 6,577,865).

Referring to Claim 1:

Dikmen discloses an interception method for performing a lawful interception in a packet network, comprising the steps of:

a) providing a first network element having an interception function for intercepting data packets (col 4, lines 35-55);

b) controlling said interception function by an interception control means implemented in a second network element (col 4, lines 10-25); and

c) transmitting an intercepted data packet from said first network element via said packet network to an interception gateway element providing an interface to at least one intercepting authority (col 6, lines 10-35).

Referring to Claim 18:

Dikmen discloses an interception system for performing a lawful interception in a packet network, comprising:

a) a first network element having an interception function for intercepting data packets and comprising a transmitting means for transmitting an intercepted data packet to said packet network (col 4, lines 35-55);

b) an interception control means implemented in a second network element and controlling the interception function (col 4, lines 10-25); and

c) an interception gateway element having a receiving means for receiving said intercepted data packet and an interface means for providing an interface to at least one intercepting authority (col 6, lines 10-35).

Referring to Claims 2 and 19:

Dikmen discloses the limitations of Claims 1 and 18 above. Dikmen further discloses said interception gateway element is integrated in said second network element (Fig. 3; col 5, lines 35-50).

Referring to Claims 3 and 22:

Dikmen discloses the limitations of Claims 1 and 18 above. Dikmen further discloses a header of a data packet is read by said first network element and data packets to be intercepted are duplicated (col 4, line 45-col 5, line 15).

Referring to Claims 7 and 28:

Dikmen discloses the limitations of Claims 1 and 18 above. Dikmen further discloses said first network element is provided in each network segment of said packet network (col 4, lines 35-65).

Referring to Claim 8:

Dikmen discloses the limitations of Claim 1 above. Dikmen further discloses received intercepted data packets are collected in said interception gateway element and supplied to an interface of said at least one intercepting authority (col 5, lines 5-35).

Referring to Claim 9:

Dikmen discloses the limitations of Claim 8 above. Dikmen further discloses said interface comprises a first interface for administrative tasks, a second interface for network signaling, and a third interface for intercepted user data (col 1, lines 50-65; col 4, lines 10-45).

Referring to Claim 10:

Dikmen discloses the limitations of Claim 1 above. Dikmen further discloses said intercepting function comprises a packet sniffing and filtering function (col 7, lines 20-30).

Referring to Claim 11:

Dikmen discloses the limitations of Claim 1 above. Dikmen further discloses said intercepting function is implemented in the Gn interface (col 7, lines 10-35).

Referring to Claim 12:

Dikmen discloses the limitations of Claim 1 above. Dikmen further discloses said interception function comprises reading data packets, analyzing the header of the data packets as to whether the data packet should be intercepted or not, and transmitting the data packet to said interception gateway element, and a management function for interception and transmission criteria (col 4, line 40-col 5, line 15).

Referring to Claim 13:

Dikmen discloses the limitations of Claim 1 above. Dikmen further discloses an alarm is transmitted to said interception gateway element and all interception information of a respective network element is deleted, when a breakage of a casing of the respective network element has been detected (col 3, lines 40-50).

Referring to Claims 16 and 23:

Dikmen discloses the limitations of Claims 1 and 22 above. Dikmen further discloses said intercepted data packet is padded to a maximum length (col 5, lines 1-2).

Referring to Claim 17:

Dikmen discloses the limitations of Claim 1 above. Dikmen further discloses a time information is added to said intercepted data packet (col 5, lines 1-2, 55-65).

Referring to Claim 24:

Dikmen discloses the limitations of Claim 18 above. Dikmen further discloses said first network element is a gateway element of said packet network (col 4, lines 35-55).

Referring to Claim 25:

Dikmen discloses the limitations of Claim 18 above. Dikmen further discloses said first network element is a BG, an SGSN or a GGSN (col 4, lines 35-50).

Referring to Claim 26:

Dikmen discloses the limitations of Claim 24 above. Dikmen further discloses wherein an interception information defining a data packet to be intercepted is included in a context information supplied to said first network element and used for routing data packets (col 4, lines 40-col 5, line 15).

Referring to Claim 27:

Dikmen discloses the limitations of Claim 26 above. Dikmen further discloses wherein said interception control means comprises a storing means for storing an interception list, and wherein said interception control means is arranged to add said interception information to said context information supplied to said first network element (col 4, lines 25-60).

Referring to Claim 30:

Dikmen discloses the limitations of Claim 18 above. Dikmen further discloses said interception gateway element comprises a memory means for storing received intercepted data packets before supplying them to said interface means (col 4, lines 50-60).

Referring to Claim 32:

Dikmen discloses the limitations of Claim 18 above. Dikmen further discloses said first network element comprises a detecting means for detecting a malfunction and/or breakage thereof, and signaling means for signaling an alarm to said interception gateway element in response to an output of said detecting means (col 3, lines 40-50; col 5, lines 55-65).

Referring to Claim 33:

Dikmen discloses a network element for a packet network, comprising:

a) an interception means for intercepting a data packet received from said packet network (col 4, lines 10-25), and

b) a transmitting means for transmitting said intercepted data packet via said packet network to an interception gateway element (col 6, lines 10-35),

c) wherein said interception means is controlled by an interception control means arranged in another network element (col 4, lines 35-50).

Referring to Claim 34:

Dikmen discloses an interception gateway element for an interception system of a packet network, comprising:

a) a receiving means for receiving an intercepted data packet via said packet network from a network element having an interception function (col 4, lines 25-65); and

b) an interface means for providing an interface to an intercepting authority (col 6, lines 10-35).

Referring to Claim 35:

Dikmen discloses the limitations of Claim 34 above. Dikmen further discloses an interception control means for controlling said interception function of said network element (col 4, lines 10-45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4-6, 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dikmen (US 6,577,865) in view of Aziz et al (US 2003/0037235).

Referring to Claim 4:

Dikmen discloses the limitations of Claim 1 above.

Dikmen does not explicitly disclose "intercepted data packet is transmitted to said interception gateway element using a secure tunnel".

Aziz discloses intercepted data packet is transmitted to said interception gateway element using a secure tunnel (paragraphs 0008-0009).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Dikmen such that the intercepted information is kept secure by using a tunnel. One of ordinary skill in the art would have been motivated to do this because it would provide a method to prevent unauthorized access (Dikmen: col 7, lines 50-60).

Referring to Claim 5:

Dikmen in view of Aziz discloses the limitations of Claim 4 above. Aziz further discloses said secure tunnel is implemented by an encryption processing (paragraphs 0008-0009).

Referring to Claim 6:

Dikmen discloses the limitations of Claim 1 above.

Dikmen does not explicitly disclose "said intercepted data packet is transmitted via interworking units and encrypted between said interworking units, when said first network element and said interception gateway element are arranged in separate network segments."

Aziz discloses said intercepted data packet is transmitted via interworking units and encrypted between said interworking units, when said first network element and said interception gateway element are arranged in separate network segments. (Fig. 1; paragraphs 0008-0009, 0021)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Dikmen such that the intercepted information is kept secure by using a tunnel. One of ordinary skill in the art would have been motivated to do this because it would provide a method to prevent unauthorized access (Dikmen: col 7, lines 50-60).

Referring to Claim 20:

Dikmen discloses the limitations of Claim 18 above.

Dikmen does not explicitly disclose "said first network element further comprises an encrypting means for encrypting said intercepted data packet"

Aziz discloses said first network element further comprises an encrypting means for encrypting said intercepted data packet (Fig. 1; paragraphs 0008-0009, 0021).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Dikmen such that the intercepted information is encrypted. One of ordinary skill in the art would have been motivated to do this because it would provide a method to prevent unauthorized access (Dikmen: col 7, lines 50-60).

Referring to Claim 29:

Dikmen discloses the limitations of Claim 18 above.

Dikmen does not explicitly disclose "first network element comprises a control means for controlling interception and encryption processing in accordance with an interception setting instruction received from said interception control means"

Aziz discloses said first network element comprises a control means for controlling interception and encryption processing in accordance with an interception setting instruction received from said interception control means (Fig. 1; paragraphs 0008-0009, 0021).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Dikmen such that the intercepted information is

encrypted. One of ordinary skill in the art would have been motivated to do this because it would provide a method to prevent unauthorized access (Dikmen: col 7, lines 50-60).

6. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dikmen (US 6,577,865) in view of Armbruster et al (US 5,710,971).

Referring to Claim 14:

Dikmen discloses the limitations of Claim 1 above.

Dikmen does not explicitly disclose "wherein fake packets are transmitted from said network element to said interception gateway element."

Armbruster discloses fake packets are transmitted from said network element to said interception gateway element (col 7, lines 25-30).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to transmit fake packets. One of ordinary skill in the art would have been motivated to do this because it would provide a method to ignore compressed data that has been duplicated (col 7, lines 20-30).

Referring to Claim 15:

Dikmen in view of Armbruster disclose the limitations of Claim 14 above. Armbruster further discloses fake packets are transmitted at random or triggered at any passing packet, such that the total load of intercepted and fake packets transmitted to said interception gateway element is constant (col 7, lines 25-30).

Allowable Subject Matter

7. Claims 21 and 31 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monplaisir G Hamilton whose telephone number is (703) 305-5116. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monplaisir Hamilton

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